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## Prostate cancer diagnosis in asymptomatic patients

*Given the uncertain benefits and the need to prioritise resources that deliver improvements in cancer outcomes, caution is still required on promoting testing for prostate cancer in asymptomatic patients*

The pandemic has disrupted cancer diagnosis and treatment in health systems worldwide. In response, patients at risk of cancer have been encouraged to present to health services to support prompt diagnosis.(1) In England, this has included a collaboration between the NHS and Prostate Cancer UK to 'find the 14,000 men' estimated to have not yet started treatment for prostate cancer, because of the pandemic.(2)

### Challenges in asymptomatic detection

The heterogeneous behaviour of prostate cancers along with the relatively poor performance of the blood test prostate specific antigen (PSA) in identifying clinically significant disease, remain obstacles to implementing beneficial early diagnosis strategies.(3, 4) A systematic review reported that screening with PSA has have little or no effect on prostate cancer mortality (incidence rate ratio: 0.96, 95% confidence intervals: 0.85 - 1.08) and can, at best, prevent one prostate cancer death for every 1,000 patients over the course of 10 years.(5)

The utilisation of multi-parametric magnetic resonance imaging has the potential to ameliorate some of the harms of screening, by reducing the proportion of patients with an elevated PSA who require biopsy and, thereby, limiting biopsy related complications including sepsis, urinary incontinence and erectile dysfunction.(6) These developments, in combination with advances in the identification of men who have higher genetic risk, may in time tip the balance of benefits and harms in favour of screening.(7) In the meantime, routine screening is not recommended by either the UK's National Screening Committee (NSC) nor the United States Preventive Service Task Force. In both countries asymptomatic individuals can opt for PSA testing, after exploring the benefits and harms with a clinician.(8-10) The number of PSA tests performed has increased markedly over the past two decades (11, 12), contributing to higher incidence but with uncertain benefits since a large proportion of cases probably constitute overdiagnosis.(13) Given these uncertainties, UK General Practitioners are advised that 'PSA testing should not be offered to asymptomatic people', unless specifically requested.(14)

### A departure

NHS England's bid to 'find the 14,000 men' appears to depart from this cautious approach. The campaign has warned that patients 'shouldn't wait for symptoms' and encourages men to use a 'risk checker'. This informs men aged over 45 with particular risk factors (black or mixed black ethnicity or a first degree relative who has had prostate cancer) and *all* men aged over 50, that they 'may be at higher risk' and suggests arranging a GP appointment to discuss this risk. Further prompts explain that the 'first step to finding early prostate cancer is a PSA test'.(15) Urging men to use the 'risk checker', NHS England's national clinical director for cancer said "prostate cancer often doesn't show any symptoms at an early stage, so don't delay – check your risk now. The simple check could be lifesaving."

## Questions raised

Arguably this messaging is consistent with the established principle of allowing patients to decide for themselves on PSA testing, and the 'risk checker' does provide some valuable information for patients. However, the apparent presumption of benefit in detecting asymptomatic disease could lead patients to believe that the NHS is promoting screening.

For GPs, ensuring patients understand the pros and cons of PSA testing and arrive at a decision that is consistent with their own values and priorities is vital, but shared decision making discussions are complex and time-consuming.(16) The quality of such discussions is likely to be highly variable and, particularly where patients have a firm expectation of having a PSA test at the outset, GPs may find it expedient to accede without fully exploring the possible consequences.(17) Encouraging all asymptomatic men over 50 to book a GP appointment to discuss their risk has resource implications, which resonates with concerns raised about a 'heart age test' which encouraged those aged over 30 to obtain a blood test for cholesterol.(18)

Other practical questions for doctors and patients abound. If patients choose screening, after what interval should they consider repeat testing? Should asymptomatic patients consider having digital rectal examination along with PSA? What resources should guide shared decision making and is there a role for risk calculators?(19) Should GPs counsel those aged under 50 who have been flagged as higher risk by the 'risk checker' that PSA is not supported by official guidance for their age group?(10)

## Greater clarity, consistency and support required

Information to patients should convey that while PSA testing is available upon request for over 50s it is not currently recommended, and why. If asymptomatic over-45s in certain risk categories should be eligible for PSA testing this needs to be stated in the national guidance which has not been updated for over six years.(10) GPs and patients need practical up-to-date guidance on PSA testing, including recommended evidence-based tools and resources to support shared decision making. If a 'risk checker' tool is to be promoted as part of an early detection strategy it is vital that it be evidence based and subject to appropriate evaluation. Meanwhile, efforts must continue to focus on ensuring prompt diagnosis of symptomatic patients and generating sufficient evidence for a systematic screening programme to satisfy the NSC of its clinical and cost effectiveness.

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## Competing Interests

Stephen Bradley: I receive funding for doctoral research from the CanTest collaborative (Cancer Research UK). I am clinical lead for cancer for NHS Leeds clinical commissioning group. The publication costs of a collection of essays on health inequalities which I co-edited for the Fabian

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Garth Funston: I am Co-Principal Investigator on a National Institute for Health Research grant (Primary care models for the detection of clinically significant prostate cancer: the ProsDetect study, NIHR202734).

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### **Contributorship statement & guarantor**

The editorial was conceived by Stephen Bradley who authored the first draft of the manuscript. All authors contributed to subsequent revisions of the manuscript. The guarantor is Stephen Bradley

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